

C l a i m s

1. A method for the manufacture of a sub-frame for a vehicle, including to produce an aluminium profile (1), said aluminium profile comprising a first channel (11) and a second channel (13) with an intervening channel (12), splitting said first channel (11) from said second channel (13) in localized areas by removing wall material from said intervening channel (12),
c h a r a c t e r i z e d i n removing parts of said first channel (11) to allow the remaining second channel (13) to be bent in said areas, forming the profile into the finished shape of the sub-frame, said second channel (13) defining a load bearing frame, and forming the remaining parts of said first channel (11) into mounting brackets for wheel suspension members and other external components.
2. A method as claimed in claim 1,
c h a r a c t e r i z e d i n that said intervening channel (12) protrudes outside the adjacent first (11) and second (13) channels in ridges (19, 29), and when splitting the profile to remove said ridges with a knife.
3. A method as claimed in claim 1 or 2,
c h a r a c t e r i z e d i n that the profile is split and material is removed in four areas, allowing the profile to be bent into a square frame structure, and closing the frame by welding opposing ends of the profile together.
4. A method as claimed in claim 1 or 2,
c h a r a c t e r i z e d i n that the profile is bent into a u-shaped structure which is closed with a cross-member spanning the ends of the second channel 13.
5. A method for the manufacture of a sub-frame for a vehicle, including to produce an aluminium profile (1),
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splitting said first channel (11)

from said second channel (13) in localized areas by removing wall material from said first channel and leave said second channel (13) intact, characterized in removing parts of said first channel (11) to allow the remaining second channel (13) to be bent in said areas, forming the profile into the finished shape of the sub-frame, said second channel (13) defining a load bearing frame, and forming the first channel (11) into mounting brackets for wheel suspension members and other external components.

6. A sub-frame for a vehicle, including an aluminium profile (1), comprising a first channel (11) and a second channel (13) with an intervening channel (12), characterized in that said second channel (13) forms a load bearing frame, the first channel (11) being formed into mounting brackets for wheel suspension members and other external components.

7. A sub-frame as claimed in claim 6, characterized in that the profile forms a square frame structure, which is closed by welding opposing ends of the profile together.

8. A sub-frame as claimed in claim 6, characterized in that the profile forms a u-shaped structure.

9. A sub-frame as claimed in claim 8, characterized in that said u-shaped structure is closed with a cross-member spanning the ends of the profile.

10. An aluminium profile including a first channel (11) and a second channel (13) with an intervening channel (12), characterized in that said intervening channel (12) is protruding outside the adjacent first (11) and second (13) channels in ridges (19,29).